incumbent cable systems.[66] This is up from 54 communities last year. Ameritech also signed its first franchise agreement in the state of Indiana.[67]

Southern New England Telephone Corp. (SNET) holds a state-wide cable franchise in Connecticut and currently provides a 90-channel americast™ competitive cable service in nearly two dozen communities.[68] It is replacing its copper plant with hybrid fiber-coaxial broadband facilities to provide both video and telephony services.

As telephone companies deploy new broadband facilities, they are still exploring ways to provide television to their enormous customer base before plant upgrades are completed.[69] In search of new, more economical approaches to delivering video and advanced interactive services over copper wire, US West recently launched a broadband digital television and data service in Phoenix, Arizona called "Choice TV".[70] The service uses a digital-subscriber-line technology knows as VDSL (very high speed DSL) to deliver video and data channels over existing copper plant.[71] Choice TV offers 136 digital video channels, 30 audio channels and has two high-speed data options, and "represents the first large scale commercial deployment of an integrated package of voice, data and TV services over a single line."[72] Given the high cost of

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66 Press Release, "Ameritech Extends Cable TV Reach in Cleveland Area," July 7, 1999.

67 Press Release, "Ameritech Signs First Cable TV Franchise in Indiana," July 23, 1999.

68 www.snet.com/americast/index.htm.

69 One company, mPhase Technologies, Inc., has developed the mPhase Traverser, a system which delivers digital television, high-speed Internet access, and traditional voice services over existing conventional copper telephone wires. The developers claim that the system has the potential to offer 80 or even 256 video channels and high definition programming. A marketing research firm recently determined that consumers may find the mPhase Traverser to be an attractive alternative to cable, including enabling telephone companies to offer the convenience of one bill for telephone, television and Internet service. Press release, "mPhase Finds End Users Keen on the Traverser," July 14, 1999; "mPhase puts video on phone lines," Carl Weinschenk, www.teledotcom.com/news1198/news1119984.html .

70 "U S West's Broadband TV, Data Launches," Multichannel News Online, June 21, 1999.

71 Id.

72 Id.

upgrading twisted pair copper networks to digital broadband facilities, it has been reported that some telcos are looking at this technology as a significantly lower cost approach to deploying fiber broadband networks than building fiber-to-the-curb or fiber-to-the-home.[73]

GTE is aggressively marketing video service in Ventura County and the City of Cerritos, California; Pinellas County, Florida and other communities. It had attracted 104,000 subscribers to its americast™ service by the end of 1998.[74]

2. Wireless Provision of Video Programming.

Although several major telephone companies have pulled back from deploying wireless video services, BellSouth continues to expand its presence in the video marketplace via multichannel multipoint distribution systems (MMDS). The company has now rolled-out wireless digital television service in New Orleans, Atlanta, and Orlando.[75] It plans to begin offering service in Daytona Beach, Miami and Jacksonville, Florida later this year.[76] Under the americast™ brand, BellSouth offers 160-plus channels to customers, including a large selection of pay-per-view movies and commercial-free music. These packages start at $36.49 per month, which include local broadcast channels, over 40 cable networks, 31 commercial-free music channels, 50 channels of pay-per-view, and a program guide. Additional packages of premium services, such as HBO and Showtime, begin at $7.99 per month for a single channel and $14.99 per month for multiple channels.

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[73] Id. U S West also recently began technical trials, in three cities, of a new service that integrates Internet access and traditional telephone service with existing television programming on the customer's TV set. Press Release, "U S West Begins 3-City Technical Trial of Nation's First Service to Integrate Customers' Telephone and Internet With Existing TV Service," June 21, 1999.

[74] GTE 1998 Annual Report.

[75] Press Release, "Pace Signs Deal to Provide Latest in Digital Set Top Boxes for BellSouth's Home Entertainment Service," February 23, 1999.

[76] Id.

In announcing a deal to provide new advanced set top equipment to its video customers beginning in November of this year, BellSouth's Entertainment president proclaimed that the "demand for our digital entertainment service has already exceeded our expectations."[77]

With the Commission's recent authorization of two-way MMDS service, wireless cable is on the rebound as a medium for high-speed Internet and data services combined with video.[78] MCI Worldcom and Sprint have bought major wireless cable companies, and various companies have undertaken technical tests and trials of broadband wireless applications.[79] People's Choice TV Corp., recently acquired by Sprint, launched a two-way wireless Internet service in Phoenix earlier this year and in May began to offer a 128-channel digital video service.[80] MCI Worldcom is reportedly negotiating to buy PrimeOne as part of its overall strategy to provide high-speed data services.[81] PrimeOne Tele-TV, which has about 65,000 subscribers to its 31-channel digital system in Los Angeles and adjacent Orange County, California is upgrading its system to expand its coverage area and signal reliability as it introduces its digital video service with up to 200 channels of programming and near-video-on-demand this year.[82] It has wireless licenses to reach about 4 million homes in other parts of California, Washington and operates systems in Washington State, South Carolina, Florida and Idaho.[83] As one analyst has concluded,

> a few years ago, MMDS was a very bad idea. Today it's a great idea. The prospects for MMDS are so much better now that it's two-way. It's just not the same technology.[84]

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[77] Id.

[78] "Wireless Cable Ops Opt for Data," Multichannel News Online, May 31, 1999.

[79] "Up in the Air – Suddenly, MMDS is hot. But how far can its technology take it?," Mark McGinty, June 21, 1999, http://teledotcom.com/directlink.cgi ("M. McGinty").

[80] Paul Kagan Associates, Inc., Wireless – Private Cable Investor, May 20, 1999, at 4.

[81] "BellSouth MMDS Deal Marks Major Pace U.S. Expansion," Multichannel News Online, March 1, 1999.

[82] Id.; "MCI's Wireless Sights Set on L.A.," Multichannel News Online, May 24, 1999.

[83] Id.

[84] M. McGinty, supra.

In some cases, new MMDS entrants will continue to offer video programming along with data transmissions, or possibly turn over the spectrum entirely to data. But the important point is that recent regulatory and technological changes give these new providers flexibility to do both.

D. Competitive Facilities-Based and Municipally-Owned Providers Are Emerging.

Cable overbuilders, which were new on the scene a year ago, are targeting large, densely populated regions around the country in joint ventures with large public utilities. RCN Corporation, a competitive local exchange carrier, is challenging cable operators in New York, Massachusetts, New Jersey, Pennsylvania and California with a combined package of phone, video and Internet-access services. Its video services are often provided as "Open Video Systems," as authorized by the Telecommunications Act of 1996. At the end of last year, RCN had approximately 880,000 "customer connections", meaning the combined total of cable, telephone and Internet customers.[85]

Under the brand name, "StarPower", RCN is currently building a $300 million, 350-mile fiber optic network in the Washington, D.C. region in a joint venture with the Potomac Electric Power Company. RCN recently got the go-ahead to start building a fiber network to serve the city of San Francisco with telephone, cable and Internet-access and is pursuing agreements with other municipalities in the Bay Area and Silicon Valley where AT&T Broadband is in the process of upgrading facilities to provide new bundled services. It also received an FCC license to provide an open video system in Phoenix and surrounding areas.[86] And just last week, RCN

[85] "RCN Plans Network in Quincy," Multichannel News Online, January 5, 1999.

[86] "Bay Area Draws Cable Overbuilders," Multichannel News Online, April 5, 1999; Communications Daily, July 26, 1999.

signed a cable franchise with the city of Boston and StarPower was awarded a 15-year franchise in Montgomery County, Maryland.[87]

Knology Holdings is aggressively building broadband networks to offer bundled services in competition with incumbent cable operators in the southeastern region of the U.S. Knology is both purchasing existing overbuilt systems and obtaining franchises to deploy new overbuilds in Alabama, Florida, Georgia and South Carolina.[88] Reportedly, it has 91,838 households which subscribe to its bundled video, voice and data services, and 80,068 of which are specifically for video services.[89] Knology recently launched an overbuild venture in Waco, Texas and plans to overbuild several cable systems throughout the state and other regions.[90]

Knology's Augusta, Georgia cable system offers, for example, 65-70 analog channels of basic programming and another 70-80 digital channels.

As we discussed last year, the Commission has taken steps to facilitate the ability of competitors, such as satellite master antenna television systems ("SMATVs") to provide services in multiple dwelling units ("MDUs"). And, in fact, many of cable's competitors, such as Knology, who are unfranchised, are cream skimming by using the most potentially lucrative MDUs to enter the video marketplace. Franchised cable operators are required to serve the entire community and must comply with regulatory and public interest obligations that are not imposed on so-called "private" cable operators (systems that do not use public rights-of-way).

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[87] "Boston Pact Caps Busy Week for RCN," Multichannel News, August 2, 1999 at 3; "StarPower Awarded Md. Franchise," Multichannel News Online, August 4, 1999.

[88] "Knology Knows Southeast Overbuilding," Multichannel News Online, July 19, 1999.

[89] Id.

[90] Id.

Meanwhile, municipal cable systems are experiencing a resurgence and now serve almost 70 communities around the nation. For example, the city of Tacoma, Washington is overbuilding the local cable operator with a broadband service network.

II. THE EMERGENCE OF COMPETITION IN THE VIDEO MARKETPLACE IS EVIDENT IN THE PRICE AND QUALITY OF CABLE SERVICE.

As shown above, the presence – and rapid growth – of good substitutes for cable provide strong evidence that competition is irreversibly taking hold in the video marketplace. The conduct of cable operators provides additional confirmation that this is the case. As the GAO recently recognized, cable operators "view the competition from new providers as significant and are pursuing strategies to retain and increase their subscriber base," including "pricing modifications, an expansion of programming, new services, and improved customer service."[91]

In a marketplace where their existing and prospective customers can readily choose a different provider, cable operators are continuously seeking ways to improve the value of their service to subscribers. This is evident from their investment in more and better programming, as well as in technological upgrades and enhancements. It is evident from their provision of more packaging options, including the availability of separately priced digital tiers of programming. And it is evident from their efforts to keep price increases under control – and in line with the prices of their competitors – despite their own increasing costs.

A. Cable Operators Continue to Invest in More Channels and in the Programming Provided Over Those Channels.

Again this year, cable operators have increased the programming options available to subscribers. The average number of channels available on a cable system remains smaller than

[91] GAO Report at 15.

the number of channels typically available from DBS providers. But the gap is rapidly narrowing as systems build out to 750 MHz and introduce digital channels.

To provide these additional channels of programming, operators have had to invest both in technological improvements that increase the capacity of their systems and in new program services to fill those channels. The technological enhancements include system upgrades that add bandwidth as well as digital compression technology that increases the number of channels that can be provided over a single 6 MHz channel. In the past year, cable operators invested $7 billion in upgrades to their plant and facilities. And they invested more than $7.4 billion in new and existing programming services.

Operators are not only adding more channels of programming to their systems but are also giving subscribers more choices of program packages. As more and more channels are added to cable systems, the cost of purchasing all the available programming necessarily goes up. As NCTA has previously explained, the economics and technology of the MVPD marketplace make it impossible to "unbundle" all of the options and make all channels available on an à la carte basis.[92] Historically, most cable programming services other than premium movie and sports channels have been offered – by all MVPDs – in a single, relatively large "tier."

Increasingly, however, cable operators are investing in technology that enables them to offer additional channels in optional packages. Most notably, digital compression technology is enabling systems to offer optional "digital tiers" of programming to subscribers in addition to the basic and "cable programming service" tiers of analog channels that have traditionally been

[92] See e.g. NCTA Comments, CS Docket No. 98-102 at 50-53 (July 31, 1998).

available. By year-end, such digital tiers – with an average of 40 channels – will be available to more than 4.7 million cable subscribers.

In addition, many systems provide optional "mini-tiers" of analog channels, which, while typically containing fewer channels than digital tiers (and none of the interactive enhancements), also offer subscribers the choice of whether or not to purchase additional channels. The cable industry has acknowledged in the past that, as the number of programming channels continues to grow to meet the demonstrated marketplace demands of subscribers, it will be desirable to find additional economical ways to give subscribers a variety of programming. While it remains most economical and efficient – for cable operators and their multichannel competitors – to offer large tiers of services, digital tiers and analog mini-tiers represent a clear effort by cable operators to enhance the value of their service by offering more choice for their customers.

B. Cable Operators and Cable Networks Are Investing in Technical Enhancements.

As noted above, cable companies are spending billions of dollars to upgrade facilities in order to increase channel capacity, improve network reliability and signal quality, and provide new two-way high speed data, Internet and telephony services. As cable systems deploy advanced hybrid fiber-coax architecture and digital compression technology, cable networks, such as A&E, Nickelodeon, ESPN, BET and MTV, are taking advantage of cable's technological growth by developing more channels of specialized programming. In addition, HBO, Showtime, Discovery, Madison Square Garden Network and other cable program networks, are investing substantial sums to produce and convert programming to new high definition resolution (HDTV) formats. All of this activity stems from the presence of a fast-changing, vibrantly competitive video marketplace and the need for cable to provide more value to its customers to maintain its leadership position.

In addition to adding more channels of programming, cable companies are investing in two-way, digital capability to provide high speed data service. Cable operators brought cable modem service to over 100 markets throughout the United States last year. By the end of 1998, 19.1 million homes were passed by cable systems offering high-speed data service and an estimated 500,000 customers subscribed to the service. Cable systems serve just under 1 million high speed access customers today. Cable modems provide customers with real-time access to video, audio, and interactive activities and optimize a customer's on-line time with their speed. In an effort to promote compatibility between cable companies and modem vendors, Cable Television Laboratories ("CableLabs") spearheaded the DOCSIS (Data Over Cable Service Interface Specification) modem standard initiative. This resulted in standards to ensure that inter-operable, non-proprietary cable modems will be made available at retail beginning later this year.

The cable industry also continues to expand its competitive offerings to include business and residential telephone service. Several of the largest multiple system operators now offer telephone service in more than 25 markets overall, and cable companies have reached interconnection agreements in 40 states and the District of Columbia. Cox Communications, for example, offers local, long distance and alternate access service in Orange County and San Diego County, California; Hartford, Connecticut; Phoenix, Arizona; Omaha, Nebraska and Hampton Roads, Virginia. Its prices are up to 45 percent less than the rates for service provided by SBC/Pacific Bell. MediaOne has introduced telephone service in Atlanta, Georgia; Los Angeles, California; Boston, Massachusetts; Jacksonville and Pompano, Florida; and most recently Richmond, Virginia.

The development of a retail market for set top equipment equipment also may spur additional MVPD competition. As video set top decisions begin to occur at the retail level, retailers – which already have more than five years experience selling DBS products – will play a greater role in the choice of MVPDs. The OpenCable™ specifications of CableLabs, which separate security functions from non-security functions in digital set top equipment (or "navigation devices"), will facilitate the development of a retail market for such equipment beginning in July 2000. NCTA and eight major MSOs recently reported to the Commission that the cable industry is on track in meeting the schedule submitted for the development of specifications for a digital security "Point of Deployment" ("POD") module and a digital security module interface that will enable digital set top equipment to be sold commercially to consumers.[93]

And in response to concerns raised by the Motion Picture Association of America ("MPAA"), the cable industry has advanced an encryption scheme to protect digital content across the interface between the module and the host device and continues to work with the Society of Cable Television Engineers ("SCTE") and its members for standardization of this scheme.[94]

C. Cable Rates Reflect the Constraints of Competition.

Last year, NCTA explained why it has historically been the case that cable prices increase at a rate that exceeds the national inflation rate. NCTA showed that this pattern has nothing to do with the presence or absence of competition in the marketplace. The inflation rate is simply an average of the price changes of many goods and services – changes that are affected

[93] "In the Matter of Commercial Availability of Navigation Devices", CS Docket No. 97-80, Status Report, July 7, 1999.

[94] See also Letter to Chairman William E. Kennard from Decker Anstrom, President, NCTA and Edward O. Fritts, President, NAB concerning DTV/Cable Interoperability, June 29, 1999.

by, among other things, the unique costs associated with the production of such goods and services. Cable prices typically increase faster than inflation because cable's costs typically increase by more than inflation.

In large part, this is because cable's product is constantly changing. Cable operators continue to enhance the quantity and quality of their service offerings – and these enhancements continue to add costs above and beyond any inflationary increases in the costs of the previous level of service. As the Commission's recent price survey indicated, the average number of channels for systems not facing effective competition has increased again, from 47.9 to 50.1.

As a result, the quality-adjusted price of cable (as measured by the average monthly per-channel price) did not increase faster than inflation. The per-channel price increased from 0.64 to 0.65 (1.5%). Meanwhile, the Consumer Price Index increased by 1.7%.

Apart from the fact that cable is adding channels of programming, it is also the case that the costs of cable's inputs of production generally increase by more than inflation. For example, the cost of programming tends to increase by more than inflation because programmers continue to spend more on original programming, on additional and renewed sports rights, and on acquired programming. Programming expenditures by basic cable networks increased from $4.3 billion in 1997 to $ 4.96 billion in 1998.

Furthermore, the costs of labor in the communications industries are significantly higher than the average for all industries. According to the most recent Employment Cost index published by the Bureau of Labor Statistics, the index for total compensation for the communications industries increased by 4.9 percent during the 12 months ended in March 1999. The index for all private industry workers increased by only 3 percent.[95]

[95] Bureau of Labor Statistics, Compensation and Workly Conditions, Summer 1999.

In any event, it is noteworthy that in the past year, the rate of cable price increases have slowed down. According to BLS statistics, cable's CPI-U increased 7.26% between June 1997 and June 1998, but only 3.75% during the past 12 months. Likewise, the gap between the rate of increase of cable prices and the overall rate of inflation was significantly smaller than in previous years.

Moreover, cable's prices are generally comparable to those of its competitors:[96]

	Cheapest package	"Expanded basic" package	Movie addicts*	Sports junkies*
DISTRICT CABLEVISION	$12.52 25 channels	$32.83 55 channels	$60.07	$46.38
CABLE TV MONTGOMERY	$17.17	$36.82	$67.68	$36.82
MEDIA GENERAL CABLE	$12.28	$34.20	$67.15	$50.15
STARPOWER	$31.95	$31.95	$57.90	$31.95
DIRECTV	$19.99	$29.99	$59.98	$39.99
DISH NETWORK	$19.99 43 channels	$28.99 69 channels	$56.98	$33.98

Source: Washington Post http://washingtonpost.com/wp-rv/tech/aprilpullout/042899too.htm

* "Movie Addicts" is expanded-basic service, plus HBO, Showtime and Cinemax. "Sports Junkies" is expanded basic plus ESPN, ESPN2 and DC-area sports (HTS or equivalent).

There is, in sum, an increasing array of competitors in the video marketplace, and cable operators are making decisions – with respect to investing in service enhancements and with respect to pricing – that are responsive their competitors. As cable's competitors similarly choose to invest in enhancements to their services in order to maximize their appeal to consumers, the deregulation of cable programming service rates, pursuant to the

[96] Indeed some of cable's new competitors have increased their rates substantially from their introductory levels. For example, "RCN Corp., a competitive cable and telecommunications provider, also raised its rates, with one New York location reporting a climb of nearly 20 percent, from $20.95 to $24.95," Multichannel News, July 12, 1999.

Telecommunications Act of 1996, has provided cable operators with the flexibility – and the flow of investment capital – that is necessary to meet that competition.

CONCLUSION

The picture emerging from the Commission's annual video inquiries gains greater clarity yearly. This year the picture emits in high definition. Consumers nationwide now have a real choice among providers of video programming. They view cable and its competitors as substitutable services. Cable's competitors are continuing to increase their share of the MVPD marketplace, and cable's market share continues to drop. Cable's market power in video is a thing of the past.

In particular, DBS continues to add subscribers at a rapid pace as perceived impediments, such as up-front equipment costs and the absence of local broadcast stations, disappear. Although cable's market share remains substantial, DBS enjoys market muscle in its capacity to serve the entire nation and add new subscribers at minimal marginal cost. This clout serves as an effective competitive constraint on cable operators, compelling them to offer competitive prices and packages of services to attract new and retain old subscribers.

By any measure, competition has taken hold in the video marketplace. It is time for the Commission to declare it.

Respectfully submitted,

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August 6, 1999

ATTACHMENT

FCC Video Competition Proceeding

Use and Limitations of Structural Indicia of Market Power

August 6, 1999

Economists Incorporated

FCC VIDEO COMPETITION PROCEEDING

USE AND LIMITATIONS OF STRUCTURAL INDICIA OF MARKET POWER

Summary

The Commission has placed undue emphasis on market shares in its annual assessments of competition in the market for multichannel video services. A firm with a large market share will not be able to exercise market power if the elasticity of supply of smaller firms is sufficiently great. The supply elasticity of DBS providers is very likely sufficient to constrain any attempts by cable operators to increase cable rates or otherwise exercise market power. Further, the Commission should distinguish the degree of competition needed to support maintenance of current regulatory policies, the implicit issue in its annual assessment, from the much more stringent competition standard used in merger enforcement.

Introduction

In its video competition inquiries and annual reports to Congress, the Commission has consistently concluded that, although competitive conditions continue to improve, structural conditions in the market for the delivery of video programming remain conducive to the exercise of market power by cable operators. The basis for this conclusion is the observation that despite cable's steadily declining share of subscribers to multichannel

video programming distributor (MVPD) services, its "market" share remains above 80 percent.[1]

While a firm's market share can, under some conditions, be used to infer its ability to exercise market power, it is not true that a large market share necessarily enables a firm to exercise market power.[2] One important reason that market share does not equate with market power is that market share is generally a measure of how successful a firm has been in the recent past, whereas market power is a function of how consumers and alternative suppliers would respond in the future in the event that a firm tries to raise price above competitive levels.[3] Thus, market share alone is not sufficient to establish market power; it is just the starting point for assessing market power.[4] The Commission itself has recognized that "[m]arket share alone is

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1 See, for example, *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Fifth Annual Report*, CS Docket No. 98-102 (December 23, 1998).

2 Market power is defined as the ability to charge prices above the competitive level for a sustained period of time. See, for example, George A. Hay, "Market Power in Antitrust," *Antitrust Law Journal*, 60:821 (1992). Market power is often regarded as a necessary condition for the existence of other competitive problems, such as tying and vertical restraints.

3 Ibid. at 821-22.

4 See, for example, Phillip E. Areeda, Herbert Hovenkamp, & John L. Solow, *IIA Antitrust Law: An Analysis of Antitrust Principles and their Application*, ¶532 (1995); *United States* v. *General Dynamics Corp.*, 415 U.S. 486, 498 (1974); *United States* v. *Baker Hughes, Inc.*, 908 F.2d 981, 986 (D.C. Cir. 1990); *Broadway Delivery Corp.* v. *United Parcel Service of America, Inc.*, 651 F.2d 122, 127-130 (2d Cir. 1981); and *Oahu Gas Service, Inc.* v. *Pacific Resources Inc.*, 838 F.2d 360, 366-67 (9th Cir. 1988).

not necessarily a reliable measure of competition, particularly in markets with high supply and demand elasticities."[5]

To the extent that the Commission does focus on market share, it is important to distinguish the policy standard that is appropriate to a continuation of present regulatory policies from the standard applicable to enforcement of §7 of the Clayton Act. Merger law is concerned with stopping incipient trends toward reduced competition through mergers and acquisitions. Regulatory policy toward cable involves a balancing of the benefits that may result from constraining market power against the costs and distortions created by regulation itself.

Discussion

The objective of the Commission's annual analysis is to provide Congress with the means to assess the economic policy merits of continuing its various regulatory policies toward cable television systems. Cable regulation is predicated on "market power"—the presumed ability of cable systems, absent regulation, to increase profits by raising prices above prevailing or competitive levels, or otherwise to restrict output. In providing analysis to Congress, the Commission may have relied unduly on purely structural indicia of market power. In the case of the cable industry, a purely structural approach (i.e., reliance chiefly on market share) is inappropriate because it leads to a misleading result.

One reason why the Commission may have adopted a structural approach is because of the influence of the *DOJ/FTC Merger Guidelines,* which are often

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[5] *Competition in the Interstate Interexchange Marketplace,* CC Docket No. 90-132, Report and Order, 6 FCC Rcd 5880, 5890 (1991).

used as a paradigm for competitive analysis. While the *Guidelines* are a very useful model, it is important to recognize that they were developed for a somewhat different purpose and under a very distinct set of policy standards.[6]

In order to obtain a summary measure of concentration in local markets for the delivery of video programming, the Commission looks at shares held by cable and non-cable MVPDs in a hypothetical local market. In addition to calculating shares, the Commission also calculates the Herfindahl-Hirschman Index (HHI). The Commission then notes that its estimated HHI of 7015 is several times greater than 1800, the threshold at which the *Merger Guidelines* considers a market to be highly concentrated.[7]

The *Guidelines* attempt to provide a basis for predicting whether a proposed *change* in industry structure (a merger or acquisition) will lead to higher prices or other consumer welfare losses. The *Guidelines* rely on structural analysis in part because of the possible irrelevance of current observable industry performance to the changed circumstances that a merger may bring about, and because of the difficulty of otherwise predicting behavior. Even

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[6] The *Merger Guidelines* are designed primarily to articulate the analytical framework the antitrust agencies apply in determining whether a merger is likely substantially to lessen competition. See *Merger Guidelines* §0.1. The standards established for this purpose seek to stem anticompetitive trends at an incipient stage, and in a context where market forces (i.e., internal growth by incumbent firms) often can correct an erroneous decision to bar an efficiency-enhancing increase in concentration. In contrast, permanent regulatory constraints which may themselves introduce distortions for which there is no market remedy are to be avoided in the absence of very substantial and continuing market power unlikely to be challenged by market forces.

[7] *Fifth Annual Report* at ¶128.

then, of course, the *Guidelines* themselves caution that any analysis requires the exercise of judgement. Mechanical application of the *Guidelines* standards may provide misleading answers to the economic questions raised. In particular, "the picture of competitive conditions that develops from historical evidence may provide an incomplete answer to the forward-looking inquiry of the *Guidelines*."[8]

In assessing the state of competition in the video industry, the Commission seeks to provide Congress with the means to test the continued validity of legislation predicated on existing market power. In contrast to merger enforcement, where the policy question is whether an *increase* in concentration will lead to increased prices, the issue before the Commission is whether the historical trend toward *decreased* concentration among MVPDs, and the economic forces that lie behind that trend, would prevent cable operators from restricting output if there were no government regulation of cable systems. The current market share of cable operators may not be very useful in answering the relevant policy question, and certainly the quantitative tests found in the *Guidelines* are inappropriate benchmarks for the Commission's purposes in its annual assessments.

From an analytical point of view, Congress must determine whether consumers' economic interests face a greater threat from the potential exercise of market power by a declining cable television industry or from the continuation of regulatory intervention in an increasingly competitive marketplace. The dangers of continuing regulation in a competitive

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[8] See *Merger Guidelines* §0.

environment are well documented,[9] as are the welfare losses from such regulation in industries such as airlines and trucking prior to their deregulation.

The *Guidelines* note that since market concentration and market share data of necessity are based on historical evidence, recent or ongoing changes in the market may indicate that the current market share of a particular firm either understates or overstates the firm's *future* competitive significance.[10] For this reason, the antitrust agencies examine other structural factors, such as entry conditions, and non-structural factors, such as a history of collusion in the industry. In interpreting market concentration and market shares, the agencies also consider reasonably predictable effects of recent ongoing changes in market conditions. Thus, even agencies whose mission is to consider the likely effects of proposed mergers that would increase market shares of leading firms consider non-share factors. This suggests the importance of considering non-structural factors in situations where normal market forces are actually reducing concentration.

To illustrate, suppose a firm has a 100 percent market share because of an entry barrier, such as a patent. When the patent expires, the firm's market share will fall, but perhaps not instantaneously. The rate at which the firm's share will fall depends on various factors, such as the speed with which entrants can expand capacity, the existence of product differentiation, and the ability of the former monopolist to discriminate in favor of more price-elastic consumers. Each of these and other relevant factors must be

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9 See, e.g., Roger G. Noll and Bruce M. Owen, eds., *The Political Economy of Deregulation*, AEI (1983).

10 See *Merger Guidelines* §1.521.

considered in deciding whether and for how long the firm retains significant market power. Note that the firm's market share by itself sheds almost no light on this question, unless it declines to a level so low as to obviate any need for further inquiry. In this example, a firm may still have 90 percent of the market and yet find itself unable to raise prices above the levels established by its new competitors. In this case, the relatively large market share is indicative not of market power but merely of competitive pricing by the former monopolist. (Indeed, in the extreme case a firm can have a 100 percent market share and yet be forced to charge competitive prices if the market is "contestable.")

Market power as measured by the gap between price and marginal cost can be shown to be a function of the elasticity of demand faced by a firm. The less elastic the demand faced by a firm, the greater is its ability to charge a price above the competitive level. A leading firm's elasticity of demand, in turn, can be shown to be a function of (1) the firm's market share, (2) the market elasticity of demand,[11] and (3) the elasticity of supply of smaller firms in the industry or firms that are able to enter the industry.[12]

A firm with a large market share will not be able to exercise market power if the elasticity of supply of smaller firms (i.e., firms with smaller shares) is sufficiently high. This simply means that if the large firm were to attempt to

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[11] The market elasticity of demand measures the degree of substitutability with other products from consumers' point of view.

[12] The elasticity of supply of smaller firms or new entrants measures their ability to quickly increase their output and sales. For a more detailed discussion of the issues presented here see William M. Landes and Richard A. Posner. "Market Power in Antitrust Cases," *Harvard Law Review* 94:937 (1981).

raise price, the smaller firms can profitably expand output rapidly and win away a sufficient number of customers that the price increase is unprofitable for the large firm. This capability of the smaller firms depends in turn upon the extent to which they can rapidly expand capacity and the marginal cost of providing service after expansion has occurred. Smaller firms may have the ability to increase production in the relevant market because they have unused capacity or because they can use resources previously employed in producing other goods. If smaller firms have a high elasticity of supply, for whatever reason, this limits the ability of the leading firm to exercise market power. When the elasticity of supply of smaller firms is substantial, basing market shares on current sales will understate the competitive impact of the smaller firms in the market.[13]

The argument that a high supply elasticity can create competitive conditions even when one firm has a large share is not new to the Commission. Indeed, the Commission came to the same conclusion in its 1995 decision to reclassify AT&T as a non-dominant carrier.[14] At that time, the Commission determined that market supply was sufficiently elastic to constrain AT&T's unilateral pricing decisions because competing firms had the capacity to expand rapidly. MCI and Sprint could have absorbed as much as 15 percent of AT&T's switched demand overnight and almost one-third of AT&T's capacity could be shifted to MCI, Sprint and LDDS/WilTel within 90 days using their existing equipment. Absorption of almost two-thirds of AT&T's

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[13] Not only the expansion of existing firms but also the ability of new firms to enter a given market and take market share away from the leading firm indicates a relatively high elasticity of small-firm supply and a lack of market power on the part of the leading firm.

capacity could be accomplished within a year through additional capital investment. With these facts, the Commission found that "supply is sufficiently elastic to constrain AT&T's unilateral pricing decisions." It is interesting to note that the policy decision then facing the Commission—whether to retain regulations on a market player with a large share—is very similar to the issue presented in the Commission's annual assessment of video programming delivery. It is also noteworthy that the ability of cable's DBS competitors to expand output, discussed below, compares favorably with the ability of AT&T's competitors to expand output.

Application to Cable Industry

If one accepts the overly-narrow[15] MVPD market put forward by the Commission, cable providers, with local "market shares" on average above 80 percent, correspond to the high-share firms in the general discussion above. Within this "market," DBS providers are the principal competitors to cable. DBS providers have the essential characteristics of relatively small

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[14] *In the Matter of Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier,* 11 FCC Rcd 3271, 3303-04 (1996).

[15] In concluding that cable has a high market share, the Commission is assuming an unduly narrow MVPD market, since it excludes competition from terrestrial broadcasters. The reasoning on this point is inconsistent. On the one hand, it is argued that terrestrial broadcasts do not compete with cable and DBS because terrestrial broadcasters (each) provide only a single channel. On the other hand, it is argued that DBS is limited in its ability to compete with cable because DBS does not yet provide local television signals—a service that has been defined to be outside the relevant market. The fact is that DBS provides consumers with an alternative to cable for precisely those cable services for which there is no local substitute. Moreover, DBS suppliers today offer various means to integrate local reception of broadcast signals with DBS channels.

firms that constrain or eliminate the market power of a large firm through the ability to expand rapidly.

First, there is virtually no limit to the capacity of DBS providers to expand the number of customers they serve. Indeed, DBS providers can expand output almost instantaneously because they already have invested in 100 percent national coverage.[16] Second, even at expanded service levels, the marginal cost of serving each DBS customer remains very low. The marginal cost of using the satellite to serve another customer is zero. The marginal cost of providing the required earth-based equipment is small and falling. In fact, the cost to a DBS supplier of providing cable programming services to a marginal customer is not appreciably different than for a cable operator. For these reasons, the supply elasticity of DBS providers is likely sufficient to constrain any attempt to increase cable rates or otherwise exercise market power.

In some industries, special circumstances may permit the large firm to exercise market power despite the presence of smaller competitors capable of rapid expansion at low cost. Two such circumstances, neither of which is present in MPVD markets, are significant product differentiation and the ability to discriminate in price. First, if the large firm's product is significantly superior to the product offered by the smaller firms, some customers may remain with the large firm even after it raises its price. In the case of multichannel video, product differentiation is based chiefly on the

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[16] Some households may be unable to subscribe to a DBS service because of line-of-sight requirements in placing the receiving satellite antenna. However, this has no relevance for assessing a cable operator's market power because, as discussed below, cable operators cannot charge higher prices to households that cannot receive DBS signals.

number of channels offered, picture quality, and the availability of local broadcast signals. DBS typically provides more channels and a better picture quality than the cable operations with which they compete. Cable in the past had an advantage over DBS in providing local broadcast signals, but this advantage is disappearing.[17] Since at least two of these three factors favor DBS over cable, there is no reason to conclude that consumers would not readily abandon cable for DBS if cable operators were to attempt to exercise any market power.

Second, a large firm can sometimes exercise market power despite the presence of competitive alternatives by selectively raising price only to those customers that are least likely to choose the alternatives. Cable operators have neither the ability to identify such customers nor the ability to charge them a higher price. The 1992 Cable Act requires cable operators to have a rate structure for the provision of most cable services that is uniform throughout the geographic area in which cable service is provided, and many franchises have similar provisions.

The presence of small competitors does not necessarily effectively constrain the power of an incumbent with a large market share. The competitive significance of DBS in constraining cable operators can be usefully illustrated by contrasting it with local telephone service. Superficially, the situations are similar, in that some incumbent local exchange carriers (ILECs) may now face competition from a number of small competitive local exchange carriers (CLECs). However, there are at least two differences that affect the competitive significance of the small competitors. First, CLECs are typically present only in portions of the larger cities, and provide little or no

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[17] See footnote 15.

competitive alternative for residential and suburban customers. DBS, in contrast, uses a satellite delivery system that makes its programming available to potential customers in all regions without incremental capital investment. Second, CLECs' ability to expand service to additional customers is often critically curtailed by their reliance on ILEC facilities and processes. In contrast, DBS suppliers are able rapidly to expand their service virtually without limit and without any reliance on cable operators.

Conclusion

The Commission has concluded that, because cable's share of MVPD services has not yet fallen below threshold levels established in the *Merger Guidelines*, cable market power persists. This reliance on market share is unwarranted. A firm with a substantial market share will not be able to exercise market power if the elasticity of supply of smaller firms is sufficiently high. The supply elasticity of DBS providers is very likely great enough to constrain any attempt to increase cable rates or otherwise exercise market power. The Commission should also distinguish between the degree of competition needed to support maintenance of current regulatory policies, the question implicitly at issue in its annual assessments of the status of competition in markets for the delivery of video programming, and the much more stringent competition standard used in merger enforcement.